


INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference VINAROVA 2		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/BG 02/00029	International filing date (day/month/year) 21.11.2002	Priority date (day/month/year) 29.12.2001	
International Patent Classification (IPC) or both national classification and IPC C12G1/06			
Applicant MICHEV, Georgi Asenov			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 3 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 13.12.2002		Date of completion of this report 16.08.2004	
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Koch, J Telephone No. +31 70 340-4307	



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/BG 02/00029**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-13 as originally filed

Claims, Numbers

1-13 received on 17.04.2003 with letter of 14.04.2003

Drawings, Sheets

1/5-5/5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

see separate sheet

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3,4,7-12
	No: Claims	1,2
Inventive step (IS)	Yes: Claims	
	No: Claims	1-4,7-12
Industrial applicability (IA)	Yes: Claims	1-4,7-12
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/BG 02/00029

Re Item I

Basis of the report

The amendments filed with the International Bureau under Article 19(1) introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 19(2) PCT. The amendments concerned are the following.

Claim 5

The original description (p. 10, § 4 & 5) does not form a sufficient basis for newly introduced claim 5. It fails to mention the features "necessary quantities of fermentable sugar and pure yeast culture" and "yeast culture in the base mix is immobilized". Further, "clarified and filtered [base mix]" has no basis.

Claim 6

The wording "non-bubbly, stabilized, and filtered" does not have any basis in the original application.

Claim 7

The wording "head has been screwed tight" does not have any basis in the original application. The feature "metal cylindrical keg" is not supported neither. No basis has been found for "is fitted inside the piping (4)" (compare to the original wording of claim 5: "and inside the lower open end of the said piping [...] is fitted").

Claim 13

The wording "head has been screwed tight" does not have a basis in the original application. The feature "metal cylindrical keg" is not supported neither. The "filter" has been omitted as technical feature.

Claim 5, 6 and 13 are disregarded and claim 7 is examined as original claim 5.

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EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/BG 02/00029

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

- D1: DE 44 22 190 A (SITTERLI ADOLF) 4 May 1995 (1995-05-04)
- D2: DE 197 03 076 C (REBBE ARNDT ;REBBE KLAUS (DE); HASTENTEUFEL HARRY (DE)) 26 March 1998 (1998-03-26)
- D3: US-A-5 311 811 (KUZYK RON D) 17 May 1994 (1994-05-17)
- D4: FR-A-2 747 116 (BORER SERGE) 10 October 1997 (1997-10-10)

2. D1 discloses (see the whole document) a method for preparing sparkling alcoholic beverages, wherein fermentation, stabilisation and filtration are carried out in one and the same air-tight container comprising a plug and sealing means. The beverage remains in the container until its consumption, when filtration and stabilisation are performed simultaneously. With respect to the present application, the stabilisation step must be considered as inherent part of the filtration step (see p. 5, I. 1-4).

D1 further discloses the preparation of sparkling alcoholic beverages by impregnation with carbon dioxide and subsequent stabilisation and filtration prior to consumption (cf. claim 2).

The subject-matter of claims 1 and 2 is therefore not novel (Article 33(2) PCT).

3. D2 discloses (see the whole document) a method for preparing beer, wherein fermentation, stabilisation and filtration are carried out in one and the same air-tight container. The beverage remains in the container until its consumption, when filtration and stabilisation are performed simultaneously.

The subject-matter of claim 1 is therefore not novel (Article 33(2) PCT).

4. D3 implicitly discloses (see abstract; col. 4 § 2) a method for preparing beer, wherein fermentation, stabilisation and filtration are carried out in one and the same air-tight container. The beverage remains in the container until its consumption, when filtration and stabilisation are performed simultaneously. The subject-matter of claim 1 is therefore not novel (Article 33(2) PCT).

5. D4 discloses (cf. abstract) a container comprising a multifunctional plug head (1) in the center of the upper part of the container, which is fixed to a piping (7) whose

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axis coincides with that of the container and whose lower open end is placed very closely to the lower end part. A filtering element (9) is fitted to the piping.

The further constructional details to be found in claims 7 and 12 (protruding cylindrical band, sealing ring, filter placed inside the lower open end of the piping, etc.) are common features of containers ("kegs") used in the brewing industry or obvious to the skilled person, respectively.

Claims 7 and 12 therefore do not involve an inventive step (Article 33(3) PCT).

6. The step of conditioning alcoholic beverages with filling solution or fruit concentrate prior to consumption is known to the skilled artisan. Claims 3 and 4 therefore do not involve an inventive step (Article 33(3) PCT).
7. In claims 8-11 a slight constructional change in the device of claim 7 is defined, which comes within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen (see e.g. D4, abstract for claim 8). Consequently, the subject-matter of claims 8-11 also lacks an inventive step.

AMENDED CLAIMS

1. Method for industrial producing of bubbly alcohol-containing beverages where a base mix is prepared and subsequently subjected to controlled alcohol fermentation in an air-tight system, stabilization and filtration, characterized by the fact that the alcohol fermentation, stabilization and filtration are carried out in one and the same air-tight space and the resultant bubbly beverage remains in that space till the moment of its consumption, when the filtration and stabilization are carried out simultaneously.

2. Method for industrial producing of bubbly alcohol-containing beverages where a preliminarily prepared non-stabilized, non-bubbly and unfiltered alcohol-containing beverage is subsequently subjected to carbonation in an air-tight system, stabilization and filtration, characterized by the fact that the carbonation, stabilization and filtration are carried out in one and the same air-tight space and the resultant bubbly beverage remains in that space till the moment of its consumption, when the filtration and stabilization are carried out simultaneously.

3. Method for industrial producing of bubbly alcohol-containing beverages according to claims 1 and 2, characterized by the fact that prior to consumption, the beverage is conditioned, in accordance with the consumer's taste, by addition of pre-dozed filling solution.

4. Method for industrial producing of bubbly alcohol-containing beverages according to claims 1 and 2, characterized by the fact that prior to consumption, the beverage is conditioned, in accordance with the consumer's taste, by addition of pre-dozed fruit concentrate.

5. Method for industrial producing of bubbly alcohol-containing beverages where a pre-stabilized, clarified and filtered base mix is prepared, containing the necessary quantities of fermentable sugar and pure yeast culture, which is subsequently

subjected to controlled alcohol fermentation in an air-tight system, characterized by the fact that the pure yeast culture in the base mix is immobilized, the resultant bubbly beverage remains in the air-tight space where it had fermented until the moment of its consumption.

6. Method for industrial producing of bubbly alcohol-containing beverages where a preliminarily prepared, non-bubbly, stabilized, and filtered alcohol-containing beverage is subsequently subjected to carbonation in an air-tight system, characterized by the fact that the resultant bubbly beverage remains in the air-tight space where it had been carbonated until the moment of its consumption.

7. A device for industrial production of bubbly alcohol-containing beverages, realizing the method under claims 1 and 2, consisting of a container, whose inner surface is suitable for contact with foodstuffs, and whose upper part has an opening, in which a plug head has been screwed tight, continuing in piping whose axis coincides with the container's, the lower end of the piping being very close to the bottom end of the container and being fitted with a filtering element, characterized by the fact that the container (1) is a standard metal cylindrical keg with spherical upper (14) and lower (15) ends, the plug head (3) is a standard multifunctional head, and the filtering element (5) is fitted inside the piping (4), sealed to its lower end by a sealing ring (6).

8. Device according to claim 7, characterized by the fact that the filtering element (5) is made of porous material with pore size less than 100 μm and is formed as a hollow cylinder whose outer surface is provided with a multitude of distancing drop-like protrusions (21), spaced along the its surface, the upper end (22) of the said filter (5) is closed, the lower end (23) of the said filter (5) is open to the volume of the container (1), along the lower periphery on the outside of the said filter element (5) a ring (24) is formed, whose outer diameter is larger than the outer diameter of the piping (4), and on the upper surface of the said ring (24) a bed is formed receiving the said sealing ring (6).

9. Device according to the claims 7 and 8, characterized by the fact that the inlet (25) of the multifunctional plug head (3) of the keg (16) is connected to monitoring and controlling devices (7), and the outlet (26) of the said head (3) is closed.

10. Device according to the claims 7 and 8, characterized by the fact that the inlet (25) of the said multifunctional plug head (3) of the said keg (16) is connected via a reduction valve (9) to a gas container (8) containing pressurized carbon dioxide, the outlet (26) of the said head (3) is closed, and the keg (16) is turned with its lower end (15) up.

11. Device according to the claims 7 and 8, characterized by the fact that the inlet (25) of the multifunctional plug head (3) of the keg (16) is connected equipressurally to the outlet of a fermentation tank (11), containing non-stabilized bubbly alcohol-containing beverage.

12. Device according to the claims 7 and 8, characterized by the fact that said protruding cylindrical band (2) consists of upper part (2') and lower part (2'') fixed, respectively, above and below the joining planes of the end parts (14 and 15) to the cylindrical surface of the container (1), so that the outer edges (17 and 18) of the bands (2', 2'') extend beyond the length of the said container (1), and the upper cylindrical band 2' is provided with opposite openings 31.

13. Device for industrial producing of bubbly alcohol-containing beverages, realizing the method according to claims 5 and 6 consisting of a container, whose inner surface is suitable for contact with foodstuffs, and whose upper part has an opening, in which a plug head has been screwed tight, continuing in piping whose axis coincides with the container's, the lower end of the piping being very close to the bottom end of the container, characterized by the fact that the container (1) is a standard metal cylindrical keg with spherical upper (14) and lower (15) ends, and the plug head is a standard multifunctional head (3).